Damage has been estimated at more than $1,400,000 and two lives were lost.

Local flooding also occurred in northern Ohio areas from excessive rains on July 5.

A second flash flood occurred in the Pittsburgh area on July 27. The maximum official rainfall recorded was 3.9 inches at Mount Lebanon and 4.56 inches at Claysville, Pa. This storm was also of a local nature and affected sections in Pittsburgh and in the vicinity of Claysville, Pa., and Wheeling, W. Va. The damage from this storm along the small streams has been estimated at $1,000,000.

Heavy rainfall on July 28–29 in the Tygart River and Little Kanawha River Basins resulted in moderate overflows at Dailey and Hall, W. Va., on July 30–31 in the Tygart Basin and severe flooding in the headwaters of the Little Kanawha Basin, especially in the Little Kanawha River and Salt Lick Creek at Burnsville, W. Va., and in Tanners Creek at Spencer, W. Va. The overflows at these points are said to have been the worst in many years.

Pacific Slope Drainage.—The following report of the annual rise of the Columbia River during 1943 is submitted by the official in charge, Weather Bureau Office, Portland, Oreg.:

At the close of March 1943 mountain snow storage in the area drained by the Columbia River was generally much above normal. The excess was most pronounced in the upper portion of the Snake River Basin.

A careful study of climatological data, and of snow survey reports furnished by the United States Soil Conservation Service, led to the conclusion that, with normal conditions prevailing during the melting season, the Columbia River at Vancouver would reach a crest of 25 feet, and backwater in the Portland Harbor a crest of 24 feet. This forecast was released on April 16.

That this estimate was well founded is shown by the fact that more water passed the Celilo, Oreg., gage, the lowest recording gage on the Columbia River, in the period April 1 to June 30, inclusive, than in the corresponding period in 1928, when the crest was 24.4 at Portland and 25.4 at Vancouver, or in 1933, when the crest was 24.8 at Portland and 25.5 at Vancouver.

Because weather during the melting period was not normal, the crest fell far short of the early estimate; the highest at Portland was 19.8, and at Vancouver, 19.9. April was unusually warm throughout the Columbia River Basin. In Idaho it was the warmest since the phenomenally warm April of 1934.

The abnormal warmth caused an unusually early rise in the Columbia and its tributaries, from April 1 to 23. The Snake River reached 16.0 at Lewiston, Idaho, on April 20 and 21 and 12.8 at Weiser on April 21. At both places this was the highest reading for the season. At Lewiston it was the highest April reading since 1904 and at Weiser the highest April reading of record. At many stations in the Columbia Basin and at Portland, on the Willamette, the average stage for the month was the highest April average of record, and at others it was the highest for many years. At Portland the high April average was largely due to backwater from the Columbia, but not altogether so, for a Willamette flood reached its crest at Portland on April 3.

During the latter part of April and the first 3 weeks in May the river stages receded. The Columbia at Vancouver fell temporarily below the flood stage of 15 feet on May 6.

May and June were unusually cool except for short periods. In Oregon, May was less than 1 degree warmer than April, and June had the same mean temperature as the coldest June previously of record. In Washington, the mean temperature for June was the lowest since 1917, and in Idaho, the lowest since 1908.

A moderate warm spell late in May caused a substantial rise. The Columbia at Vancouver again reached the flood stage of 15 feet on May 29, and did not fall below that stage until July 17. Backwater from the Columbia again brought the Willamette at Portland to the flood stage of 18 feet, on the afternoon of June 1. Cooler weather in the mountains brought it below flood stage on the 8th, but it again rose above flood stage on the evening of the 20th, continuing above flood stage until July 7.

Because the rises were slow and ample warning was given, very little movable property was lost. Every Columbia River flood causes some loss of crops and pasture on undiked low lands; this is considered one of the normal risks. Rental of auxiliary pasture, and moving property from flood danger, particularly heavy goods from the lower levels of docks, entails large expense. Other losses were largely intangible. Incomplete statistics at hand indicate a loss of about $200,000 due to the flood.

FLOOD-STAGE REPORT FOR JULY 1943

[All dates in July unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
HUDSON BAY DRAINAGE	*Feet*			*Feet*	
Red of North: Moorhead, Minn	17	June 4 June 29	June 9 6	19.2 20.4	June 6 2
ST. LAWRENCE DRAINAGE					
Lake Erie					
St. Marys: Decatur, Ind	13	17	18	16.0	17
St. Joseph: Montpelier, Ohio	10	9	9	10.1	9
ATLANTIC SLOPE DRAINAGE					
James: Columbia, Va	10	11	11	10.1	11
Roanoke:					
Weldon, N. C	31	13	13	31.1	13
Williamston, N. C	10	15	21	10.6	18–19
Neuse:					
Smithfield, N. C	13	15	15	13.0	15
Goldsboro, N. C	14	13 16	14 19	14.2 14.9	14 17–18
Haw: Moncure, N. C	20	14	14	20.5	14
Cape Fear:					
Fayetteville, N. C	35	14	15	37.6	15
Lock No. 2, Elizabethtown, N. C	20	11	18	28.7	15
Pee Dee:					
Mars Bluff Bridge, S. C	17	10	21	19.8	15–17
Poston, S. C	18	15	23	19.8	17–18
Saluda:					
Pelzer, S. C	6	2 11	4 11	6.7 6.0	3 11
Chappells, S. C	13	1	2	15.1	2
Broad: Blairs, S. C	14	10	11	16.8	11
Catawba:					
Catawba, N. C	8	10	10	9.1	10
Catawba, S. C	11	10	10	16.5	10
Savannah:					
Burtons Ferry, Ga	15	7 15	10 18	15.7 15.0	8 15–18
Clyo, Ga	11	9	26	13.9	13
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Chippewa: Durand, Wis	11	(1)	2	14.3	June 30
Zumbro: Theilman, Minn	36	6	6	38.6	6
Wisconsin: Portage, Wis	17	2	2	17.5	2
Mississippi:					
Reads, Minn	12	1	1	12.0	1
Winona, Minn	13	1	5	14.0	3
La Crosse, Wis	12	1	6	12.8	2–3
Dubuque, Iowa	18	6	10	18.7	8
Clinton, Iowa	16	(1)	13	17.1	June 30–1
Muscatine, Iowa	15	(1)	14	16.0	1–2, 11
Keithsburg, Ill	12	(1) 9	5 14	12.4 12.3	2–3 11–12
Keokuk, Iowa	12	(1)	17	13.95	5
Gregory Landing, Mo	12	(1)	18	14.2	5–6
Quincy, Ill	14	(1)	18	16.6	5–6
Hannibal, Mo	13	(1)	20	16.8	6
Louisiana, Mo	12	(1)	20	14.9	7
Missouri Basin					
Floyd: James, Iowa	14	8	8	15.0	8
Grand: Brunswick, Mo	12	5	12	12.6	9–10
Missouri: Nebraska City, Nebr	15	5	7	15.5	6
Ohio Basin					
Buckhannon: Hall, W. Va	10	30	31	[2] 10.2	30
Tygart, Dailey, W. Va	9	30	31	12.7	30
Arkansas Basin					
Little Arkansas: Sedgwick, Kans	18	19	19	[2] 18.3	19
Lower Mississippi Basin					
St. Francis: St. Francis, Ark	18	(3)	3	19.3	May 31
PACIFIC SLOPE DRAINAGE					
Columbia Basin					
Willamette: Portland, Oreg	18	(1)	7	19.8 18.3	June 24 June 30–4
Columbia:					
The Dalles, Oreg	40	(1)	17	42.7	June 30–1, 3
Vancouver, Wash	15	(1)	17	19.9 18.5	June 23–24 2–3

[1] Continued from June.
[2] Highest observed.
[3] Continued from May.